"DRAFT"
DO NOT ENTER
THANKS
JMF

CAMPBELL STEPHENSON LLP
11401 Century Oaks Terrace
Building H, Suite 250
Austin, Texas 78758
T: 512-439-5080
F: 512-439-5099

FACSIMILE COVER SHEET

To:	Jean Fleurantin	From:	Shawn Doman
Fax:	571/273-4035	Date:	June 4, 2009
Phone:		Pages:	9 (Incl. Cover)
Re:	Application No. 10/790,657		

Message:

Examiner Fleurantin:

Attached please find proposed amendments to the claims for this matter. We request that you submit these amendments in an Examiner's amendment. I believe these amendments to be in accord with the telephone discussions you and I have had as well as the prosecution history to date. Based on our discussions, I believe these amendments place this application in condition for allowance. A brief summary is below.

Independent claim 13 is amended to recite limitations substantially similar to independent claims 1 and 23, which you indicated are allowable in our phone discussions. Thus claims 14, 16, 19, and 21 are allowable at least by virtue of depending from allowable base claim 13.

Claims 15, 17, 18, and 20 (indicated as allowable in previous Office Action) have been rewritten to include the limitations of the base claim and any intervening claims.

Independent claim 24 is amended to include the limitations of claim 28 (indicated as allowable in previous Office Action).

Independent claim 32 is newly added including all the limitations from claim 29 (indicated as allowable in previous Office Action) and its base and intervening claims.

Claims 26 and 26 are amended to fix antecedent basis problems.

Claims 22, 25, 28, 29, and 31 are cancelled.

We intend to pay the additional claims fees through the efiling system. If you would prefer, we can submit these amendments in a supplemental response. If you have any questions or concerns, please call me at 512-439-5092. I will be in the office Friday morning around 9:30 EDT.

Thank you,
Shawn Doman

If you do not receive all pages, please call (512) 439-5080

LISTING OF THE CLAIMS

The following listing, if entered, replaces all prior versions of the claims in the present application.

1. (Previously Presented) A method comprising:

modifying data of a data volume to create modified data;

a primary node, comprising a first server, transmitting the modified data to a first secondary node, wherein the first secondary node comprises a first replica of the data volume and the first secondary node comprises a second server;

the first secondary node receiving and processing the modified data to generate processed data;

the first secondary node transmitting the processed data to the primary node;

the primary node receiving and transmitting the processed data to a second secondary node, wherein the second secondary node comprises a second replica of the data volume and the second secondary node comprises a third server;

the second secondary node receiving and storing the processed data in memory.

2. (Original) The method of claim 1 further comprising the first secondary node overwriting data of the first replica with the modified data.

3. (Original) The method of claim 1 wherein the first secondary node processes the modified data according to a data compression algorithm.

4. (Original) The method of claim 3 further comprising:

the first secondary node reading data from the first replica in response to receiving the modified data from the primary node;

the first secondary node processing the modified data and the data read from the first replica according to the data compression algorithm to generate the processed data.

5. (Original) The method of claim 1 wherein the first secondary node processes the modified data according to a checksum algorithm.

6. (Original) The method of claim 5 further comprising:

the first secondary node reading data from the first replica in response to receiving the modified data from the primary node;

the first secondary node processing the modified data and the data read from the first replica according to the checksum algorithm to generate the processed data.

7. (Original) The method of claim 1 wherein the first secondary node processes the modified data according to a data encryption algorithm.

8. (Original) The method of claim 1 wherein the first secondary node processes the modified data according to a difference computation algorithm.

9. (Original) The method of claim 8 further comprising:

the first secondary node reading data from the first replica in response to receiving the modified data from the primary node;

the first secondary node processing the modified data and the data read from the first replica according to the difference computation algorithm to generate the processed data.

10. (Original) The method of claim 1 wherein the primary node transmits the modified data to the first secondary node via a first communication link, wherein the primary node transmits the processed data to the second secondary node via a second communication link, wherein the first communication link is defined by a first data transmission bandwidth, wherein the second communication link is defined by a second data transmission bandwidth, and wherein the first data transmission bandwidth is greater than the second data transmission bandwidth.

11. (Original) The method of claim 10 wherein the first replica is maintained as a synchronous replica of the data volume, and wherein the second replica is maintained as an asynchronous replica of the data volume.

12. (Original) The method of claim 1 further comprising the first secondary node transmitting the processed data to a third secondary node, wherein the third secondary node comprises a third replica of the data volume.

13. **(Currently Amended)** A computer readable storage medium storing instructions executable by a computer system to perform a method, wherein

the computer system is contained in a first secondary node in data communication with a primary node,

the primary node comprises **a first server and stores** a data volume,

the first secondary node comprises **a second server** a first replica of the data volume, and

the method comprises:

receiving modified data of the data volume from the primary node;

overwriting data of the first replica with the modified data;

processing the modified data to generate processed data;

the first secondary node transmitting the processed data to the primary node;

the primary node receiving and transmitting the processed data to a second secondary node, wherein the second secondary node comprises a second replica of the data volume and the second secondary node comprises a third server; and

the second secondary node receiving and storing the processed data in memory.

14. (Previously Presented) The computer readable storage medium of claim 13 wherein the modified data is processed according to a data compression algorithm.

15. (Currently Amended) [[The]] A computer readable storage medium ~~of claim 14 wherein the method further comprises~~ storing instructions executable by a computer system to perform a method, wherein

the computer system is contained in a first secondary node in data communication with a primary node,

the primary node comprises a data volume,

the first secondary node comprises a first replica of the data volume, and

the method comprises:

receiving modified data of the data volume from the primary node;

overwriting data of the first replica with the modified data;

processing the modified data to generate processed data, wherein the modified data is processed according to a data compression algorithm;

the first secondary node transmitting the processed data to the primary node;

reading data from the first replica;

processing the modified data and the data read from the first replica according to the data compression algorithm to generate the processed data.

16. (Previously Presented) The computer readable storage medium of claim 13 wherein the modified data is processed according to a checksum algorithm.

17. (Currently Amended) [[The]] A computer readable storage medium ~~of claim 16 wherein the method further comprises:~~ storing instructions executable by a computer system to perform a method, wherein

the computer system is contained in a first secondary node in data communication with a primary node,

the primary node comprises a data volume,

the first secondary node comprises a first replica of the data volume, and

the method comprises:

receiving modified data of the data volume from the primary node;

overwriting data of the first replica with the modified data;

processing the modified data to generate processed data, wherein the modified data is processed according to a checksum algorithm;

the first secondary node transmitting the processed data to the primary node;

reading data from the first replica;

processing the modified data and the data read from the first replica according to the checksum algorithm to generate the processed data.

18. (Currently Amended) [[The]] A computer readable storage medium ~~of claim 13~~ storing instructions executable by a computer system to perform a method, wherein

the computer system is contained in a first secondary node in data communication with a primary node,

the primary node comprises a data volume,

the first secondary node comprises a first replica of the data volume, and

the method comprises:

receiving modified data of the data volume from the primary node;

overwriting data of the first replica with the modified data;

processing the modified data to generate processed data, wherein the modified data is processed according to a data encryption algorithm; and

the first secondary node transmitting the processed data to the primary node.

19. (Previously Presented) The computer readable storage medium of claim 13 wherein the modified data is processed according to a difference computation algorithm.

20. **(Currently Amended)** [[The]] A computer readable storage medium ~~of claim 19 wherein the method further comprises:~~ **storing instructions executable by a computer system to perform a method, wherein**

the computer system is contained in a first secondary node in data communication with a primary node,

the primary node comprises a data volume,

the first secondary node comprises a first replica of the data volume, and

the method comprises:

receiving modified data of the data volume from the primary node;

overwriting data of the first replica with the modified data;

processing the modified data to generate processed data, wherein the modified data is processed according to a difference computation algorithm;

the first secondary node transmitting the processed data to the primary node;

reading data from the first replica;

processing the modified data and the data read from the first replica according to the difference computation to generate the processed data.

21. (Previously Presented) The computer readable storage medium of claim 13 wherein the first replica is maintained as a synchronous replica of the data volume.

22. **(Cancelled)**

23. (Previously Presented) A data system comprising:

a primary node in data communication with first and second secondary nodes via first and second communication links, respectively, wherein the primary node, first secondary node, and second secondary node comprise a first, second, and third server respectively;

the primary node comprising a data volume;

the first and second secondary nodes comprising first and second replicas, respectively, of the data volume;

a primary node comprising means for transmitting modified data of the data volume to the first secondary node;

the first secondary node comprising means for receiving and processing the modified data to generate processed data;

the first secondary node comprising means for transmitting the processed data to the primary node;

the primary node comprising means for receiving and transmitting the processed data to the second secondary node;

the second secondary node receiving and storing the processed data in memory.

24. **(Currently Amended)** A method comprising:

modifying data of a data volume to create modified data;

a primary node, comprising a first server, transmitting the modified data to a first secondary node, wherein the first secondary node comprises a first replica of the data volume and the first secondary node comprises a second server;

the first secondary node receiving and processing the modified data to generate processed data, **wherein processing data includes counting the number of transactions generated to write data to a hard disk allocated to store data of the data volume replica in a given period of time**;

transmitting the processed data to the primary node, wherein the primary node comprises the data volume;

storing the processed data in memory.

25. **(Cancelled)**

26. **(Currently Amended)** The method of claim 24 wherein the ~~first~~ data **volume** comprises a file system.

27. **(Currently Amended)** The method of claim 24 wherein the ~~first~~ data **volume** comprises a database.

28. **(Cancelled)**

29. **(Cancelled)**

30. **(Currently Amended)** The method of claim [[25]] 24 wherein processing data includes defragmenting a replicated file, and wherein the results comprise an allocation of one or logical memory blocks of the data volume replica to the replicated file.

31. **(Cancelled)**

32. **(New)** A method comprising:

modifying data of a data volume to create modified data;

a primary node, comprising a first server, transmitting the modified data to a first secondary node, wherein the first secondary node comprises a first replica of the data volume and the first secondary node comprises a second server;

the first secondary node receiving and processing the modified data to generate processed data, wherein processing data includes identifying the number of times an access time stamp changes in a given period of time.;

transmitting the processed data to the primary node, wherein the primary node comprises the data volume;

storing the processed data in memory.